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No. 83-

IN THE

Supreme Court of the United States

OCTOBER TERM, 1983

ALABAMA POWER CO., *et al.*,
Petitioners,

v.

SIERRA CLUB, *et al.*,
Respondents.

PETITION FOR A WRIT OF CERTIORARI TO THE UNITED STATES COURT OF APPEALS FOR THE DISTRICT OF COLUMBIA CIRCUIT

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QUESTIONS PRESENTED

1. Whether, instead of independently construing technical statutory terms—terms that will determine if a State must use contrary-to-fact "stack height" assumptions in revising its State Implementation Plan under § 110 of the Clean Air Act—the Court of Appeals was required to give "legislative effect" to EPA's rulemaking application of those terms when § 123 of the Clean Air Act specifically directs that their meaning be determined by EPA through rulemaking?

2. Whether the Court of Appeals was correct in ordering EPA to disregard historical engineering practice and to develop "Good Engineering Practice" (GEP) rules that will require comprehensive State Implementation Plan revisions, when the legislative history of § 123 indicates that EPA could rely on historical practice in defining GEP and when such State Implementation Plan revisions

   (a) are not needed to assure compliance with the public health and welfare-based ambient air quality standards;

   (b) will impose great complexities on the already complex air pollution control programs being administered by the States; and

   (c) could require fuel switching, new control technologies or both, costing hundreds of millions of dollars?

3. Whether the Court of Appeals (which clearly misunderstood the effect of EPA's "plume impaction" rule) was correct in ordering EPA to require the States to use contrary-to-fact assumptions that only apply to sources located in hilly or mountainous parts of the country, when the consequences of using such contrary-to-fact assumptions were never considered by Congress in enacting § 123 and when the use of these assumptions will result in State Implementation Plan revisions which will

   (a) in the words of the Court of Appeals, "harshly discriminate" against both existing facilities and

new development in hilly or mountainous regions of the country; and

(b) impose pollution control costs that are billions of dollars more than the costs associated with the emission limitations that would be required for identical, or even more polluting, sources located in flat terrain?

PARTIES TO THE PROCEEDING

This case involves challenges to final regulations promulgated by EPA under § 123 of the Clean Air Act, 42 U.S.C. § 7423. Sierra Club and Natural Resources Defense Council (NRDC) were petitioners in Case Nos. 82-1384 and 82-1845. The Commonwealth of Pennsylvania was petitioner in Case Nos. 82-1412 and 82-1889. These cases were consolidated on August 18, 1982. The U.S. Environmental Protection Agency was the Respondent in all of these proceedings. Petitioners, Alabama Power Co., 66 other individual electric utilities,* the Edison Electric Institute, the National Rural Electric Cooperative Association, and the American Public Power Association intervened on behalf of Respondent EPA in all of these proceedings. The American Petroleum Institute, Gulf Oil Co., Shell Oil Co., Standard Oil Co. (Indiana) and Texaco Co. also intervened on behalf of Respondent in all of these proceedings. Kennecott Minerals Co. and Tennessee Valley Authority intervened on behalf of Respondent EPA in Case No. 82-1384. The State of Vermont, the State of New York, the Commonwealth of Massachusetts, the State of Rhode Island and the State of New Hampshire intervened jointly on behalf of Petitioners Sierra Club and NRDC in Case No. 82-1384. These states also intervened on behalf of the Commonwealth of Pennsylvania in Case No. 82-1412.

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* A list including the names of the individual companies that comprise Petitioners Alabama Power Co., *et al.*, and all parent companies, subsidiaries, and affiliates is contained in the supplemental appendix attached to this Petition pursuant to Rule 28 of this Court.

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Alabama Power Co., 66 other individual electric utilities,[1] the Edison Electric Institute, the National Rural Electric Cooperative Association, and the American Public Power Association, respectfully petition for a writ of certiorari to review the judgment of the United States Court of Appeals for the District of Columbia Circuit entered in this proceeding on October 11, 1983.[2]

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[1] The 67 individual utility petitioners and their parent companies, subsidiaries, and affiliates are set forth in the supplemental appendix attached to the petition pursuant to Rule 28 of this Court.

[2] The court below had jurisdiction of these cases under § 307 (b) (1) of the Clean Air Act, 42 U.S.C. § 7607 (b) (1) (Supp. V 1981), which provides the District of Columbia Circuit with exclusive jurisdiction to review any "nationally applicable regulations . . . promulgated by the Administrator . . . ."

OPINIONS BELOW

The opinion in the Court of Appeals in *Sierra Club, et al. v. EPA*, Nos. 82-1384, 82-1412, 82-1845, 82-1889 (D.C. Cir. October 11, 1983), is reported at 719 F.2d 436. A copy of the opinion appears in the Appendix hereto (hereinafter referred to as "App. ——") at 1a-69a.

JURISDICTION

The judgment of the Court of Appeals for the D.C. Circuit was entered on October 11, 1983. A timely Petition for Rehearing and Suggestion for Rehearing *En Banc* were denied on December 13, 1983, App. 70a, 72a, and this petition for certiorari is being filed within 90 days of that date. This Court's jurisdiction is invoked under 28 U.S.C. § 1254(1) (1976).

STATUTORY AND REGULATORY PROVISIONS INVOLVED

The following statutory and regulatory provisions are set forth in the Appendix:

1. Clean Air Act §§ 101, 110(a)(1)-(a)(2)(J), 123, 42 U.S.C. §§ 7401, 7410(a)(1)-(a)(2)(J), 7423 (Supp. V 1981), App. 106a-111a.
2. 38 Fed. Reg. 25697, *et seq.* (1973) (Initial Guidance on Use of Supplementary Control Systems), App. 103a-105a.
3. 47 Fed. Reg. 5864, *et seq.* (1982) (Final Stack Height Rules), 40 C.F.R. § 51.1(z), (ff)-(mm), § 51.12(j)-(l), § 51.18(l) (1983), App. 80a-102a.

STATEMENT OF THE CASE

Section 110 of the Clean Air Act establishes a federal-state partnership to implement federal ambient air quality requirements. Since the Clean Air Act was amended in 1970 to initiate this exercise in federalism, this Court has been requested on five occasions to review decisions of the Courts of Appeals that have called upon EPA to

redirect aspects of the federal-state clean air program. Each of these cases involved one or more decisions by the Courts of Appeals rejecting EPA's interpretation of its obligations under § 110. Reflecting the importance of such cases to the federal government and to each of the 50 states which are bound by EPA guidance, certiorari was granted in each instance.[3]

The decision of the Court of Appeals for the District of Columbia Circuit in this case, like the other five cases in which this Court has granted certiorari, calls into question the continuation of the current federal-state system of implementing ambient air quality requirements. In the exercise of its exclusive jurisdiction under the Clean Air Act, the court below has required EPA to rewrite very technical regulations dealing with the amount of "stack height" that can be assumed by the states in setting emission limitations in the "implementation plans" required under § 110 of the Act. While the subject matter may be arcane, the social and economic consequences that flow from the court's decision are staggering, equaling or surpassing those presented in previous cases reviewed by this Court.

If the decision of the court below is allowed to stand, air quality regulation in the fifty states will undergo a dramatic redirection as the states are required to substitute false stack height assumptions for actual stack height. As a result, abatement of real pollution problems will no longer be the primary focus of state air pollution programs. Instead, the states will be required

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[3] One case resulted in affirmance by an equally divided court. Fri v. Sierra Club, 412 U.S. 541 (1973). One never reached decision. Montana Power Co. v. EPA, Nos. 76-529, *et al.*, *cert. granted*, 430 U.S. 953 (1977), *vacated and remanded*, 434 U.S. 809 (1977). One is awaiting decision. Chevron U.S.A., Inc. v. NRDC, Nos. 81-1005, *et al.*, *cert. granted*, 103 S.Ct. 2427 (1983). The remaining two resulted in opinions rejecting Circuit Court decisions that failed to defer to EPA's construction of the Act. Train v. NRDC, 421 U.S. 60 (1975); Union Electric Co. v. EPA, 427 U.S. 246 (1976).

to develop emission limitations for existing sources and to regulate new source growth on the basis of theoretical, not actual, ambient pollution concentrations predicted by falsely assuming that emissions are released from a short smokestack. Not only will this judicially-imposed shift in focus entail the imposition of substantial economic costs, but it will make administration of ambient air quality programs of the states infinitely more complex. *See infra* pp. 27-29.

The District of Columbia Circuit's decision in this case thus calls for a more fundamental revision of § 110 regulatory programs than is involved in the *Chevron* case that is currently pending before this Court (Nos. 82-1005, *et al.*). It presents as extreme a restriction on the discretion of the states to revise emission limitations as was involved in *Train v. NRDC*, 412 U.S. 60 (1975). It calls for the imposition of emission controls without regard to costs, as required by *Union Electric*, but in a setting which lacks the public health justifications underlying this Court's holding in *Union Electric*, 427 U.S. 246, 258-59 (1976). As explained below, the need for review here is as compelling as it was in any of the prior cases accepted by this Court.

I. THE STATUTE

The Clean Air Act[4] establishes a system of air quality regulation that is based upon "National Ambient Air Quality Standards" ("ambient standards") and Prevention of Significant Deterioration ("PSD") "increments".[5]

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[4] 42 U.S.C. §§ 7401, *et seq.* (Supp. V 1981) (hereinafter referred to as "CAA" or "the Act"). (For convenience, all further citations will be to the Act. Parallel citations to the U.S. Code are given in the Table of Authorities.)

[5] The ambient standards define maximum ground level concentrations of pollution which, if attained, will assure protection of public health and welfare. CAA §§ 108, 109. The PSD increments define the maximum increases in ground level concentrations that are allowed to occur as a result of new construction in areas where the ambient standards are met. CAA § 163.

Under § 110 of the Act, the states must set emission limitations for individual sources to ensure that their emissions will not cause or contribute to ground level pollution concentrations that exceed the ambient standards or PSD increments.

Dispersion of pollution after release from a source and before it reaches ground level is essential to the operation of the § 110 federal-state programs. If there were no dispersion, it would not be possible to operate any industrial fuel burning facility without creating pollution concentrations that exceed ambient air quality standards and PSD increments by factors of many thousand.[6] In other words, industrial activity and protection of the public health could not co-exist without dispersion. Dispersion, therefore, will determine the type of fuel a source can use, what control technologies it must install, and where it can be built.

Section 123 of the Act was added in 1977 and addresses a question which goes to the heart of the § 110 system of air quality regulation—when must the states assume that a source's emissions will reach the ground in a less dispersed (i.e., more concentrated) condition than is happening in fact? If this false dispersion assumption is broadly applied, state air quality regulation will shift its focus from actual pollutant concentrations to wholly theoretical ones.

A. The Long-Standing Engineering and Regulatory Practice

Engineering standards have traditionally required that industrial facilities build stacks tall enough to avoid

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[6] For example, if the emissions from a well-controlled source (e.g., a power plant meeting the stringent EPA new source standards) were released at ground level, they would create ambient concentrations of sulfur dioxide (SO_2) in the range of 900,000 micrograms per cubic meter. By comparison, the primary (public health) ambient standard for SO_2 is 365 micrograms per cubic meter (24-hour calendar day average), and the Class II PSD increment is 91 micrograms per cubic meter (24-hour calendar day average).

atmospheric turbulence which could drive the concentrated emissions plume directly to the ground (a phenomenon called "downwash"). As early as the 1930s, sources built stacks based upon a conservative "good engineering practice" (GEP) formula that required stacks in flat terrain to be built to a height equal to at least 2.5 times the height of the source in order to avoid excessive ground level concentrations caused by downwash.[7] In mountainous terrain, additional stack height was often necessary to avoid excessive concentrations due to downwash caused by terrain obstacles.[8] Although most sources followed these engineering principles in designing stacks, larger-than-GEP smokestacks were built by certain sources in order to obtain more dispersion and hence relaxed emission limitations.

To eliminate the pollution control advantages that might be associated with building stacks taller than GEP height, EPA adopted the traditional GEP concept in regulatory guidance issued in response to litigation in 1973,[9] and revised in 1976.[10] Under the 1973 guidance, a source could automatically increase stack height up to 2.5 times source height and the states could use that stack height in determining emission limitations under § 110. The guidelines further noted that a source in rugged terrain might need stack height greater than 2.5

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[7] *See, e.g.*, Briggs, Gary A., *Plume Rise*, Oak Ridge: U.S. Atomic Energy Commission (1969); U.S. Environmental Protection Agency, Guideline for the Determination of Good Engineering Practice Stack Height (Technical Support Document for the Stack Height Regulations) (July 1981, with addendum of December 15, 1981) (hereinafter referred to as "GEP Guidelines") at 7-9, Appendix A. *See also* EPA 1973 Stack Height Guidelines, 38 Fed. Reg. 25697, 25700 (1973), App. 103a-104a.

[8] GEP Guidelines at 24-26, Appendix A.

[9] 38 Fed. Reg. 25697, *et seq.* (1973), App. 103a-105a.

[10] 41 Fed. Reg. 7450, *et seq.* (1976); *see* NRDC v. EPA, 529 F.2d 755, 760 (5th Cir. 1976).

times source height to prevent problems associated with reduced dispersion caused by rugged terrain.[11]

B. The Clean Air Act Amendments

Congress added § 123 to the Clean Air Act in 1977 in order to codify the court decisions[12] and pre-existing regulatory guidance on GEP stack height.[13] Under § 123, a state must assume that a source's emissions are released from a stack that is no higher than GEP height whenever actual stack height exceeds GEP height. Thus, if an actual stack is found to be taller than GEP, emission limitations for that source and surrounding sources must be based upon the theoretical, more concentrated ground level pollution that would result from assuming the shorter GEP stack height.

Congress' objectives in adding § 123 to the Act were two-fold. On the one hand, Congress wanted to provide a clear statutory basis for the principle that sources that had built stacks higher than GEP height could not obtain relaxed emission limitations based upon the greater dispersion to ground level associated with such tall stacks.[14] On the other hand, Congress wanted to

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[11] 38 Fed. Reg. 25700 (1973), App. 104a.

[12] NRDC v. EPA, 529 F.2d 755 (5th Cir. 1976); Big Rivers Electric Corp. v. EPA, 523 F.2d 16 (6th Cir. 1975), *cert. denied*, 425 U.S. 934 (1976); Kennecott Copper Corp. v. EPA, 526 F.2d 1149 (9th Cir. 1975), *cert. denied*, 425 U.S. 935 (1976); NRDC v. EPA, 489 F.2d 390 (5th Cir. 1974).

[13] *See* H.R. Rep. No. 294, 95th Cong., 1st Sess. 93 (1977), *reprinted in*, The Environmental Policy Division of the Congressional Research Service of the Library of Congress, *A Legislative History of the Clean Air Act Amendments of 1977* 2560 (1978) (hereinafter referred to as "1977 *Legis. Hist.*")

[14] *Id.* Congress, as reflected in the House Report, was concerned that if it allowed sources to use greater-than-GEP stack height (i.e., tall stacks) as an alternative to emission controls, a number of adverse consequences might ensue. Congress discussed "long range transport" and "acid rain" in this regard. It should be emphasized

make it clear in § 123 that the amount of dispersion to ground level associated with GEP stack height should be credited in setting emission limitations.[15] In other words, § 123 reflects Congress' understanding that the amount of dispersion associated with GEP stack height was integral to any proper emissions control program.[16]

In § 123, Congress directed that GEP be "determined under regulations promulgated by the Administrator." CAA § 123(a)(1), App. 110a. Three general criteria were set forth by Congress to guide the Agency in its exercise of this broad grant of rulemaking authority.

First, Congress directed that GEP be defined in a manner "*to insure*" that "nearby" structures or terrain will not create downwash that "result[s] in excessive concentrations of any air pollutant." CAA § 123(c) (emphasis added), App. 111a. The meaning of technical terms underlying the GEP concept (such as "excessive concentrations" and "nearby") were to be "determined by the Administrator," subject to the conservative "to insure" standard. *Id.* Second, Congress specified that GEP

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that these "adverse effects" cited in the House Report were those that would, it was believed, flow from abandoning emission controls in favor of increased tall stack dispersion. In other words, this legislative history explained why Congress was codifying past practice in § 123 *rather than repealing it*. *See* H.R. Rep. No. 95-294 at 84-88, 93, 1977 *Legis. Hist.* at 2551-555, 2560. It should also be emphasized that § 123 is not written to require the development of any kind of rational "long range transport" or "acid rain" control measures. Rather, § 123 requires that emission limitations be set in terms of theoretical, local concentrations, and not the far-field downwind deposition that is asserted to have a public health or welfare significance. Indeed, the Administration and Congress are presently in the throes of addressing the need for acid rain legislation. *See* S.768, 98th Cong., 1st Sess. (1983); Washington Post, February 8, 1984, at A17, col. 1.

[15] H.R. Rep. No. 95-294 at 93, 1977 *Legis. Hist.* at 2560.

[16] *Id.*; *see supra* note 6 and accompanying text.

rules may not allow stack height credit in excess of "*two and a half times* the height of such source [the "historical" GEP formula] unless the owner or operator . . . demonstrates . . . that a greater height is necessary" to avoid excessive concentrations due to downwash. *Id.* (emphasis added). Third, Congress ordered that "[i]n no event may the Administrator prohibit any increase in any stack height or restrict in any manner the stack height of any source." *Id.*

II. THE EPA RULEMAKING

After enactment of the 1977 Amendments, EPA announced in November 1977 that the traditional "good engineering practice" standard of 2.5 times source height would be applied to new and existing sources pending the development of regulations under § 123 of the Act.[17] The rulemaking to implement § 123 was initiated in January 1979. At that time, EPA proposed a radical change in the definition of "good engineering practice."

A. The 1979 Proposals and the Subsequent Reevaluation

EPA's January 1979 proposals would have required many sources that had made commitments based upon the traditional 2.5 rule to recalculate stack height credit based upon costly case-specific demonstrations.[18] The proposals would also have severely restricted the instances in which sources in mountainous terrain could demonstrate that terrain obstacles caused unacceptable downwash.[19] These and other aspects of the proposals would have vastly increased the number of instances in which false stack height assumptions would have had to

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[17] 42 Fed. Reg. 57459, 57460 (1977); *see* 40 C.F.R. § 51.24(h) (1983).

[18] *See* 44 Fed. Reg. 2608, 2610-11 (1979); *see* Comments of the Utility Air Regulatory Group (April 3, 1979) at 15-22.

[19] 44 Fed. Reg. at 2611, 2614.

be used in setting emission limitations under state implementation plans.[20]

Industry and states strongly criticized these initial proposals. Their rulemaking comments showed that EPA's departure from established engineering principles would cost industry and consumers billions of dollars to meet new emission limitations based upon false stack height assumptions.[21] Furthermore, these comments showed that the proposals would economically discriminate against sources in mountainous and hilly terrain by requiring them to meet emission limitations ten times more stringent than emission limitations for identical sources in flat terrain.[22] Finally, these comments showed that these rules would have imposed substantial administrative burdens on the states. *See infra* pp. 27-29.

Based upon these comments, the schedule for promulgation of final rules was suspended while EPA conducted additional analyses of the impacts of its § 123 proposal. EPA's consultant issued a report in August 1980 that found that the 1979 proposals would have resulted in increased capital costs of up to $2.8 billion and

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[20] *See* ICF, Inc., Economic Impact of Tall Stack Regulations (June 1981) (appended to Comments of the Utility Air Regulatory Group (June 16, 1981)); EEA, Inc., Cost and Economic Impact Analysis of the Proposed Stack Heights Regulation (August 15, 1980) at 10-17, App. 132a-129a (hereinafter referred to as "1980 Impact Assessment"); Comments of the Utility Air Regulatory Group (April 3, 1979) at 6-29.

[21] *See, e.g.*, Comments of Monsanto Co. (March 9, 1979) at 2; Comments of Gulf States Utilities Co. (March 8, 1979) at 1-2; Comments of the State of New Jersey Department of Environmental Protection (March 12, 1979) at 1-2; Comments of the State of Maryland Department of Environmental Health Administration (February 28, 1979) at 1.

[22] *See, e.g.*, Environmental Research and Technology, Analysis of EPA Proposed Regulations on Stack Height Limitation (March 1979) (submitted as Appendix C to Comments of the Utility Air Regulatory Group (March 1979)) at 14-20, App. 116a-122a; *see infra* notes 52 & 53.

increased annual costs of up to $794 million for utilities alone, and in rate increases of up to 26% for individual utilities.[23] Additional costs would have been imposed on utilities in mountainous terrain. *See infra* note 52.

In light of the rulemaking comments and its own additional analyses, EPA reproposed new rules in October 1981,[24] pursuant to a court order that required promulgation of final rules by January 1982.[25] The reproposed rules more closely paralleled the traditional engineering and regulatory concept of "GEP" stack height.

B. The Final Rules

In February 1982, EPA promulgated final rules that, like the reproposed rules, are consistent with traditional engineering and regulatory practice.

1. *The "GEP Formula"*—EPA's final rules adopt the traditional GEP formula to govern dispersion credits for stacks in existence before January 12, 1979 (the date of the initial EPA proposals), and adopt a refinement of the traditional 2.5 times source height rule (called the "1+1.5" rule) for stacks that are built after this date. EPA concluded, based upon the extensive record it had compiled,[26] that these formulas would yield a stack of sufficient height "to insure" that excessive concentrations due to downwash would be avoided.[27]

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[23] 1980 Impact Assessment at 10-18, App. 123a-129a.

[24] 46 Fed. Reg. 49814, *et seq.* (1981).

[25] Sierra Club v. Gorsuch, C.A. No. 81-0094 (D.D.C. Aug. 20, 1981).

[26] During § 123 rulemaking, EPA developed thousands of pages of documents in analyzing various aspects of the proposed and final rules. Over 100 commentators filed comments discussing various portions of the proposed rules. Public hearings were held that produced hundreds of additional pages of transcript and testimony.

[27] GEP Guidelines at 2, Appendix A; 47 Fed. Reg. 5864, 5865 (1982), App. 84a.

2. *"Excessive Concentrations"*—The final rules provide that credit above GEP formula height may be obtained only if the affected source makes a specific showing that the formulas fail to allow enough stack height credit "to insure" against "excessive concentrations" due to downwash.[28] "Excessive concentrations," a statutory term, is defined as a substantial "percentage increase" (i.e., 40 percent) in ambient concentrations caused by downwash. This definition reflects the historical engineering and regulatory notion of a maximum acceptable downwash condition.[29]

3. *"Nearby"*—The statute provides that "excessive concentrations" must result from downwash caused by "nearby structures" or "nearby terrain obstacles." In accordance with the common understanding of the term, EPA defined "nearby" as a relative concept that is dependent upon the size of the object. Since larger objects will cause severe downwash at greater distances, EPA compiled an extensive record on the relationship between downwash and the obstacles that might produce it.[30] In the case of buildings and other manmade structures which are characterized by regular shapes and sizes, EPA was able to define "nearby structures" by a formula: "5 times" the height or width of the structure, up to ½ mile.[31] Since terrain obstacles are much larger than buildings and have irregular shapes, EPA found that unacceptable downwash could extend for much greater distances. EPA could not determine a precise formula, however, and therefore de-

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[28] *See* GEP Guidelines at 20-23; 47 Fed. Reg. at 5865, App. 84a-87a (1982).

[29] *See* GEP Guidelines at 20-23; J.E. Cermak and R.L. Petersen, Comments on the Proposed Regulations of 7 October 1981 to Implement Section 123 of the Clean Air Act (November 1981) at 1-8 (Appended to Comments of the Utility Air Regulatory Group (November 18, 1981)).

[30] *See* GEP Guidelines at 5-15, 24-26.

[31] 47 Fed. Reg. at 5869, App. 100a.

fined a "nearby terrain obstacle" as one that is demonstrated through a fluid modeling study to be close enough to the source to cause at least a 40 percent increase in local ambient concentrations due to downwash.[32]

4. *"Plume Impaction"*—EPA included in these rules a provision that governs development of GEP emission limitations in mountainous or hilly terrain. This provision—called the "plume impaction" rule—requires emission limitations for rugged terrain sources to be set using GEP stack height assumptions. It permits such sources, however, to adjust the terrain height assumption in the atmospheric dispersion model that must be used to establish a GEP emission limitation. *See infra* note 60. This adjustment is necessary to avoid predictions showing plume impaction (i.e., a concentrated plume drifting into elevated terrain rather than reaching ground level after dispersion) that could never occur in reality.[33] Under this rule, the GEP-based emission limitation governs unless the use of actual terrain height and actual stack height would require a more restrictive emission limitation. *See infra* pp. 22-23.

III. THE D.C. CIRCUIT'S DECISION

On October 11, 1983, the D.C. Circuit set aside virtually every significant portion of EPA's § 123 regulatory program. The court found that since "Congress appears to have taken the main elements of [the 1973 EPA guidance] statement in its definition of good engineering practice height," App. 9a, 10a, EPA's construction of § 123 seemed to reflect what Congress "probably had in mind." App. 42a-43a. Nonetheless, the court rejected EPA's reliance upon historical practice because such reliance would not carry out what the court asserted was the "pre-

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[32] *Id.* at 5865, 5868-69, App. 86a, 100a; GEP Guidelines at 47-48.

[33] *See* GEP Guidelines at 4, 50-51, addendum of December 15, 1981; 47 Fed. Reg. at 5866-67, App. 90a-94a.

dominant purpose" of § 123—to force emission reductions through the use of false stack height assumptions.[34]

As enunciated by the court, "two precepts are the heart of [its] holding" on GEP stack height. App. 28a. First, in defining GEP, the court held that EPA was wrong in adopting "a conservative [GEP] rule that was absolutely sure to eliminate health hazards." Instead, the court held that EPA must justify its GEP rules "independent of" historical engineering practice. *Id.* Second, where there is a choice between definitions of a term, the court directed EPA always to "err on the side of reducing stack height." *Id.*

1. *The "GEP" Formula*—Based upon its independent reading of § 123, the court set aside EPA's rule establishing a "GEP formula" on which sources could rely in building stacks and the states could rely in setting emission limitations. It held that since EPA's regulation defining a GEP formula might, in some cases, provide more protection against downwash than is needed, "[r]ationality demands" that EPA require case-specific showings that its rule does not provide too much protection against unacceptable downwash. Alternatively, EPA must establish a GEP formula that never provides for too much protection. App. 46a-47a.

2. *"Excessive Concentrations"*—The court set aside EPA's definition of "excessive concentrations," finding that although it was "likely . . . that Congress thought

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[34] App. 18a. The court also characterized § 123 generally "as something of a concession from the strict command that dispersion *not be used* to meet air quality standards." *Id.* (emphasis added). No support is cited in the statute or the legislative history for either this characterization or the court's conclusion regarding § 123's "predominant purpose." Indeed, the "strict command" against dispersion discovered by the court reflects a fundamental misunderstanding of the principles underlying good air quality management since without dispersion there could be no industrial activity. *See supra* note 6 and accompanying text.

traditional engineering practice" would be followed, EPA's definition had not been justified "independent of" historical notions of adverse downwash conditions. App. 18a-28a.

3. *"Nearby"*—The court affirmed EPA's definition of "nearby structures" but set aside EPA's definition of "nearby terrain obstacles," holding that regardless of the factual record on the downwash effects of very large terrain obstacles, a rigid distance definition (e.g., "½ mile") was both in keeping with the "strict command [of § 123] that dispersion not be used to meet air quality standards," and would further the court's assumed § 123 objective of "reducing emissions." App. 13a-18a. Although the lower court noted that this interpretation reflected "an element of arbitrariness," App. 18a, it justified its reading of the statute as not "utterly nonsensical." App. 16a.

4. *"Plume Impaction"*—The lower court set aside EPA's plume impaction rule. While the court admitted that its holding would "discriminate[] harshly against utilities located in mountainous terrain" and that Congress did not "focus on, and resolve" the problem redressed by EPA in the rule, App. 37a, 38a, the court concluded that its holding was "not utterly irrational" because elimination of the plume impaction rule would once again reduce dispersion credit. App. 39a; *infra* pp. 24-25.

5. *Requirements on Remand*—Having dismantled EPA's § 123 regulatory program, the D.C. Circuit imposed upon EPA, without briefing and argument, a six month deadline[35] to promulgate a new § 123 program, and imposed upon the states a nine month deadline to implement fully EPA's revised program. In imposing the six month deadline upon EPA, the court suggested that the rulemak-

[35] This schedule begins upon issuance of the mandate (App. 68a), which has been stayed by the court pending the filing of this Petition.

ing could be completed within this time by reverting to the 1979 proposals, since "the flaws we have found in EPA's regulations were reversals of positions taken in the 1979 proposed regulations." App. 68a-69a.

On November 25, 1983, Petitioners filed a timely Petition for Rehearing and Suggestion for Rehearing *En Banc*. These were both denied on December 13, 1983. App. 70a-73a.

REASONS FOR GRANTING THE WRIT

Section 123 of the Clean Air Act calls upon the states to use "good engineering practice stack height" assumptions when establishing emission limitations under § 110 of the Act, and expressly delegates to EPA the authority to adopt rules that define GEP for the states. After lengthy rulemaking, EPA adopted GEP rules which define technical statutory terms in light of historical engineering and regulatory practice. The court below rejected EPA's rules without giving any deference whatsoever to the Agency's construction of the statute, and ordered EPA to require the states to adopt costly implementation plan revisions that will substantially complicate the administration of the § 110 federal-state clean air programs. In the process, the court transformed a minor statutory provision designed to codify past engineering practice into a comprehensive mandate for "reducing emissions" based upon false air quality predictions.

This case, like other recent decisions of the court below, exhibits the D.C. Circuit's view that it is free to decide whether or not any deference should be given to an agency's interpretations of its enabling legislation. As Judge Mikva asserted in a recent opinion, "the case law . . . has not crystalized around a single doctrinal formulation which captures the extent to which courts should defer to agency interpretations of law."[36] Judge Wright attrib-

[36] NRDC v. EPA, No. 81-2001, slip op. at 18 (D.C. Cir. January 17, 1984).

utes this perceived lack of clarity to what he terms the countervailing "gravational pulls of two opposing platitudes," one counseling deference to reasonable agency interpretations and the other stating that the courts are the final authorities on matters of statutory construction.[37]

Where technical terms are involved and the agency is directed to define them through rulemaking, as is the case here, decisions of this Court require that the agency's interpretations be given "legislative effect." [38] If these interpretations are not given legislative effect, they must at least be deferred to if they are within the spectrum of "reasonable" interpretations of the act.[39] In this case, rather than giving "legislative effect," or even "deference," to EPA's reasonable definitions of technical terms used in § 123 of the Clean Air Act, the D.C. Circuit chose a third standard of review and appointed itself the "final authority" on the meaning and application of technical statutory terms such as "GEP," "excessive concentrations," and "nearby terrain obstacles."

In sum, the D.C. Circuit, a court which is vested with exclusive or concurrent jurisdiction to review the actions of virtually every federal agency,[40] does not view itself as being bound in any given case to apply the "deference" standard of review; rather, the choice of "opposing platitudes" is entirely for the court.[41]

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[37] Black Citizens for a Fair Media v. FCC, 719 F.2d 407, 423 (D.C. Cir. 1983) (Wright, J., dissenting).

[38] Herweg v. Ray, 455 U.S. 265, 274-75 (1982); *infra* note 43 and accompanying text.

[39] Train v. NRDC, 421 U.S. 60, 75 (1975); *infra* note 49 and accompanying text.

[40] *See, e.g.*, CAA § 307(b); 28 U.S.C. § 2343 (1976) (Hobbs Act); 47 U.S.C. § 402(b) (1976) (Federal Communications Commission); 26 U.S.C. § 9011(a) (1976) (Federal Election Commission).

[41] *See also* Democratic Senatorial Campaign Comm. v. FEC, 660 F.2d 773, 776-77 (D.C. Cir. 1980) ("special deference to an agency's

Certiorari should be granted in this case in order to avoid substantial and unwarranted changes in the air quality programs administered by the states under § 110 of the Clean Air Act, and to bring to a halt the uncertainty created by the D.C. Circuit's case-by-case approach to determining the standard it will apply when reviewing agency interpretations of enabling legislation.

I. THE D.C. CIRCUIT'S REJECTION OF EPA'S RULEMAKING IMPLEMENTATION OF "GOOD ENGINEERING PRACTICE" VIOLATES THE DECISION OF THIS COURT IN *HERWEG v. RAY* THAT AN AGENCY'S DEFINITION OF TECHNICAL TERMS IN ITS ENABLING LEGISLATION MUST BE GIVEN "LEGISLATIVE EFFECT"

Congress directed EPA in § 123 to "determine under regulations promulgated by the Administrator" the meaning of "GEP" stack height. CAA § 123(a)(1), (c), App. 110a, 111a. Unlike other provisions of the Clean Air Act, Congress made no attempt in § 123 to define key technical terms such as "excessive concentrations" and "nearby terrain obstacles." *Compare* CAA § 169 (definitions of terms used in "PSD" provisions). Rather, it simply required that EPA apply a precautionary standard (i.e., "to insure" against unacceptable downwash) when implementing the term "GEP."

Pursuant to this specific delegation of authority to give content to technical terms in § 123, EPA defined "GEP,"

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interpretation of its governing statute is often appropriate . . . [this agency interpretation] fails to merit the court's substantial deference"), *rev'd*, 454 U.S. 27, 31-32 (1981) (D.C. Circuit improperly addressed "deference" issue); National Wildlife Federation v. Gorsuch, 693 F.2d 156, 166-70 (D.C. Cir. 1982) ("the standard for deference to an agency's interpretation of its governing statute 'defies generalized application' "). *Cf.* Public Service Comm'n v. Mid-Louisiana Gas Co., 103 S.Ct. 3024, 3038 (1983) (White, Brennan, Marshall, and Blackmun, JJ., dissenting) (dispute as to deference standard).

"excessive concentrations," and "nearby terrain obstacles" in a manner that both fulfills the statutory command "to insure" against the occurrence of unacceptable downwash,[42] and reconciles them with longstanding regulatory and engineering experience. *See supra* pp. 5-7. To assure that implementation of its definition of GEP would not produce mindless discrimination against mountainous or hilly terrain regions of the country, EPA adopted the "plume impaction" rule. *See infra* pp. 22-23.

In similar cases in which Congress has made an "explicit delegation of authority [to an administrative agency] to give substance to the meaning of" a statutory term, this Court has applied a standard of review entitling the agency's definition

> "to more than mere deference or weight." [Citations omitted.] Because Congress has entrusted the primary responsibility of interpreting a statutory term to the [agency] rather than to the courts, [t]his definition is entitled to *"legislative effect."* [43]

Instead of giving EPA's application of these technical terms "legislative effect," the D.C. Circuit, in each instance, rejected EPA's reasonable interpretation of the statute and substituted different interpretations based upon the court's independent evaluation of congressional intent. *See supra* pp. 14-15, *infra* p. 21. Certiorari is necessary to clarify for the D.C. Circuit that this Court's decision in *Herweg v. Ray*, 455 U.S. 265 (1982), provides the appropriate standard of review in this case, and to correct this intrusion by the court below into EPA's delegated powers.

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[42] *See* 47 Fed. Reg. at 5865, 5868-69, App. 84a, 99a-100a; GEP Guidelines at 1-4, 20-23, 47-48, Appendix A.

[43] Herweg v. Ray, 455 U.S. 265, 274-75 (1982) (emphasis added). *See also* Schweiker v. Gray Panthers, 453 U.S. 34, 43-46 (1981); Batterton v. Francis, 432 U.S. 416, 424-29 (1977); FEC v. Democratic Senatorial Campaign Comm., 454 U.S. 27, 37-39 (1981).

II. EPA'S INTERPRETATION OF TECHNICAL STATUTORY TERMS WAS "SUFFICIENTLY REASONABLE" TO PRECLUDE THE D.C. CIRCUIT FROM SUBSTITUTING ITS JUDGMENT FOR THAT OF THE AGENCY

If for any reason this Court determines that the "legislative effect" standard of *Herweg v. Ray* is not the applicable standard of review in this case, it is nonetheless clear that under the decision of this Court in *Union Electric Co. v. EPA*, 427 U.S. 246, 256 (1976), the court below was required to "accord[] great deference to the Administrator's construction of the . . . [Clean Air] Act," and that under *Train v. NRDC*, 421 U.S. 60, 75 (1975), the court below should have accepted EPA constructions of the Clean Air Act that were "reasonable." For the reasons discussed below, EPA's rules were based on reasonable constructions of the Act which should have been given deference by the D.C. Circuit.

Section 123 gives EPA broad latitude to implement "GEP" rules so long as its rules "insure" that unacceptable downwash will be avoided. *See supra* pp. 8-9. The only other statutory constraint on the Agency's rulemaking authority to implement GEP is that credit for any stack height above 2.5 times source height must be established through case-by-case adjudication. CAA § 123(c), App. 111a. Thus, the "to insure" language of § 123 contemplates a conservative rule which errs on the side of sufficient credit but does not allow automatic credit greater than 2.5 times source height.

EPA's final rules were consistent with the commands of the statute. In promulgating its rules, EPA concluded, based upon statements in the legislative history, that Congress in § 123 was generally codifying previous judicial decisions and "affirming the 2½ times standard used by the Administrator."[44] Therefore, EPA deter-

[44] H.R. Rep. No. 95-294 at 93, 91-92, 1977 *Legis. Hist.* 2560, 2558-59.

mined that both "GEP stack height" and "excessive concentrations" should be defined in terms of the traditional 2.5 rule, which had been shown through actual practice to be a conservative measure of the minimum stack height needed to avoid serious downwash.[45]

In holding that EPA is precluded from adopting a "conservative" GEP formula which provides absolute protection against unacceptable downwash, App. 28a, the court below failed to give any effect to the statutory command that GEP "insure" against unacceptable downwash. Instead of looking at the language of the statute, the court evaluated the acceptability of EPA's interpretation exclusively in reference to legislative history. While the court itself described the legislative history as sending out "sharply conflicting signals" regarding congressional intent, App. 20a-21a, the court rejected EPA's construction of the Act on the basis of a single, ambiguous passage in the Conference Report.[46]

In requiring EPA to abandon traditional historical engineering practice and to adopt rules that "err on the

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[45] GEP Guidelines at 7, Appendix A; *see* App. 8a-10a. *Cf.* Corning Glass Works v. Brennan, 417 U.S. 188, 201 (1974) ("where Congress has used technical words or terms of art, 'it [is] proper to explain them by reference to the art or science to which they [are] appropriate' ").

[46] In analyzing the legislative history, the court conceded that there was evidence in the legislative history that Congress "probably intended" to legislate the conservative, preexisting engineering practice underlying terms such as "GEP" and "excessive concentrations." App. 8a-9a, 20a. However, the court gave controlling weight to a single passage in the legislative history which the court characterized as indicating "that the conference committee saw *the possibility* of a distinction between its definition of the amount of downwash to be avoided and what engineers had been doing." App. 23a (emphasis added). As a result of this "possibility," the lower court concluded that Congress did in fact intend that the broad language of § 123 would change radically the traditional GEP concept.

side of reducing stack height," [47] the court below completely ignored the precautionary language of the statute ("to insure") and gave no weight whatsoever to EPA's reasoned but different view of the legislative history.[48] As the decisions of this Court make clear, a reviewing court is not free to overturn an agency's interpretation of technical statutory terms "simply because it may prefer another interpretation of the statute," or because "reasonable men could differ as to their construction." [49] Certiorari is necessary to correct the D.C. Circuit's confusion as to the appropriate standard of review, which has led it to rewrite a complex, technical statutory provision.

III. THE D.C. CIRCUIT EXCEEDED ITS AUTHORITY AS A REVIEWING COURT BY REQUIRING EPA TO APPLY ITS GEP RULES TO SOURCES IN RUGGED TERRAIN IN A MANNER NEVER CONSIDERED BY CONGRESS

During the rulemaking, EPA interpreted § 123 to allow the development of a rule which could be used by states with hilly or mountainous terrain to determine GEP emission limitations. This rule makes clear that such states are not required to revise their § 110 implementation plans based upon GEP modeling results showing "plume impaction" (a phenomenon that can only occur in rugged terrain areas) when such plume impaction cannot, and does not, occur in reality. Thus, while Congress in § 123 had called for states to base emission limitations upon false stack height assumptions, *see supra* p. 7, EPA concluded that Congress had not or-

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[47] App. 28a.

[48] 47 Fed. Reg. at 5865, App. 84a-87a; GEP Guidelines at 1-4.

[49] INS v. Wang, 450 U.S. 139, 144 (1981). *See* Beal v. Doe, 432 U.S. 438, 447 (1977); Investment Company Institute v. Camp, 401 U.S. 617, 626-27 (1971).

dered the states to apply a second false assumption—i.e., assuming that stack height is lower than terrain height when this is not the true relationship. It is the use of this second false assumption which results in predictions of theoretical "plume impaction." [50]

If this second false assumption were used in atmospheric models developed for sources in rugged terrain, states would be required to set GEP emission limitations that would be more stringent by a factor of ten than the GEP limits imposed upon identical sources in flat terrain. *See supra* note 22 and accompanying text; App. 38a-39a. In order to bring GEP emission limits for rugged terrain sources more into line with those calculated in flat terrain, EPA developed a rule which, as the lower court correctly observed, would require sources in mountainous regions to meet GEP emission limitations *that are as restrictive or more restrictive than those calculated in flat terrain.*[51] In construing the statute to eliminate irrational discrimination against rugged terrain areas while at the same time assuring enforcement of stringent GEP-based emission limits, EPA furthered the specific objectives of § 123 and the general objectives of the Act to protect the "public health and welfare" in a way that also promotes the "productive capacity" of the nation.[52]

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[50] *See* GEP Guidelines at 4; 47 Fed. Reg. at 5866-67, App. 91a-92a.

[51] App. 32a n.4. Under the "plume impaction" rule adopted by EPA to avoid the use of this second false assumption, sources in mountainous terrain would be allowed to assume that terrain height was equal to GEP stack height. In atmospheric modeling, this terrain height adjustment would be the *only* adjustment made for such sources. Emission limitations would then be calculated using GEP formula stack height, and these GEP emission limitations would govern *unless* the use of actual stack height above GEP height would result in a more stringent emission limitation due to actual plume impaction. GEP Guidelines at 4.

[52] CAA § 101(b)(1), App. 106a. Requiring states to impose emission limitations based upon false plume impaction would require

In reviewing the "plume impaction" rule, the court below conceded that Congress, in enacting § 123, did not "focus on, and resolve" the question of whether GEP emission limitations should be based upon false plume impaction. App. 37a. Notwithstanding this congressional silence and notwithstanding the fact that EPA's plume impaction rule would require equal or more stringent GEP emission limitations for rugged terrain sources, the court below reversed the rule. The court's holding is predicated on the assumption that emissions from sources in mountainous regions would somehow be dispersed over a wider territory, and that such "wider dispersion" would violate congressional intent. App. 39a. These assumptions are wrong.

Since both § 123 and the plume impaction rule affect only assumed and not actual stack height, the plume impaction rule will have no effect whatsoever on the geographical extent of dispersion from existing stacks in rugged terrain. *See* CAA § 123(c), App. 111a. With respect to new stacks, the plume impaction rule ensures that stacks in rugged terrain will always be assumed to disperse pollution less widely than similar stacks in flat terrain.[53] As to congressional intent, the rule assures that sources in rugged terrain will meet stringent GEP

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sources located in rugged terrain to expend billions of dollars more on controls than their flat terrain counterparts, even though these sources emit at much lower levels than sources in flat terrain. Comments of the Utility Air Regulatory Group (June 16, 1981) at 37-38; Comments of the Southern Company (May 29, 1981) at 1-2. These large costs would redirect further industrial growth towards flat terrain areas, where population centers are typically located, and where sources are able to emit at higher levels and obtain *more* dispersion than if they were to locate in rugged terrain. *See* Comments of the Utility Air Regulatory Group (June 16, 1981) at 46-47; Comments of Sun Company (Nov. 2, 1981) at 1-2; Comments of Gulf States Utilities (March 8, 1979) at 1-2.

[53] Since emissions at terrain height (the atmospheric modeling adjustment required by the plume impaction rule) reach the ground more rapidly than emissions released above terrain (the assump-

limi , thus fulfilling the congressional objective that sources with taller-than-GEP stacks gain no emissions control advantage due to increased dispersion. *See supra* pp. 7-8.

To justify its holding that EPA must apply § 123 in a way which "discriminates harshly" against states with mountains and hills, App. 38a, the court once again resorted to the legislative history of the Act. This time it focused on congressional testimony relating to the PSD provisions of the Act which the court believed disclosed an "indifference" by Congress to such discrimination.[54] *As the court itself concedes*, however, none of this legislative history supports the conclusion that Congress actually "focuse[d] on" or "resolve[d]" the question whether the states must base § 123 emissions limitations on false predictions of plume impaction. App. 37a.

In view of Congress' silence, it was incumbent upon EPA in exercising its § 123 rulemaking authority to resolve the regional discrimination problem posed by false plume impaction predictions in a manner consistent with the general and specific purposes of the Act.[55] EPA

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tion used for flat terrain souces), emissions of sources in rugged terrain will always be assumed to be dispersed *less* widely than comparable emissions from sources in flat terrain. When actual stack height assumptions govern under the plume impaction rule, the geographical extent of the dispersion will be even less, since emission limitations will be based upon a concentrated plume interacting with nearby terrain. *See* GEP Guidelines at 4, 51.

[54] The court cited legislative history counseling "more careful siting" of new industrial facilities in rugged terrain as reflecting this curious congressional bias against hills and mountains. App. 35a-36a, 38a. All of this legislative history, however, is irrelevant to § 123 since it concerns the siting of *new* sources which have flexibility to choose whether or not to locate in rugged terrain. Section 123, by contrast, will immediately affect many existing sources already located in rugged terrain.

[55] *See* Rose v. Lundy, 455 U.S. 509, 517 (1982) (where it appears that "Congress never thought of the problem . . . the policies underlying the statutory provision [must be analyzed] to determine its proper scope"); Sea-Land Service, Inc. v. Kreps, 566 F.2d 763, 773 (D.C. Cir. 1977) (where there is "no direct statutory mandate, the

did this. *See supra* p. 23. Its decision was reasonable, particularly in light of the very legislative history relied upon by the court. That legislative history showed that when regional discrimination was brought to Congress' attention in the context of problems created by the PSD provisions of the Act, Congress responded, as EPA did here, by fashioning a provision ameliorating the discrimination.[56]

Certiorari is required in this case to confirm that, in the face of Congressional silence, EPA had authority to construe the Clean Air Act in a manner which avoids absurd and irrational results,[57] while assuring that the statutory objectives are attained. EPA's plume impaction rule was within EPA's discretion under the statute and the court below exceeded its authority in rejecting that rule.[58]

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agency charged with administering the statute must . . . look to the *purposes* underlying the particular provision and the Act in general").

[56] The court below incorrectly concluded that "[no] relief for mountainous areas was enacted in response" to the statements it cites. App. 36a. The PSD provisions, as enacted, include a variance provision providing for *more lenient* PSD treatment of sources in rugged terrain. *See* CAA § 165(d)(2)(D)(iii)-(iv); 1977 *Legis. Hist.* 318, 351, 438, 533.

[57] American Tobacco Co. v. Patterson, 456 U.S. 63, 71 (1982). *See also* Citizens to Save Spencer County v. EPA, 600 F.2d 844, 891 (D.C. Cir. 1979) (Leventhal, J., concurring): "When an agency shows good sense, '[c]ourts are loathe to say that good sense is not good law.' "

[58] Even if the D.C. Circuit did not agree with the Agency's rationale for the plume impaction rule, it should have simply remanded the rule to the Agency for reconsideration rather than reversing it based upon the court's independent factual assumptions. *See* Public Service Comm'n v. Mid-Louisiana Gas Co., 103 S.Ct. 3024, 3038 (1983); South Prairie Construction Co. v. Operating Engineers, 425 U.S. 800, 805-06 (1976); FCC v. Pottsville Broadcasting Co., 309 U.S. 134, 145 (1940).

IV. THE D.C. CIRCUIT'S DECISION WILL SERIOUSLY RESTRICT ECONOMIC GROWTH IN MANY AREAS OF THE COUNTRY AND WILL GREATLY COMPLICATE ADMINISTRATION OF THIS NATION'S SYSTEM OF AIR QUALITY REGULATION

In this case, the D.C. Circuit has overturned EPA's implementation of § 123 in favor of a different approach advocated by environmental groups. The court's decision rejects the ground rules which, since 1973, have guided the states in developing emission limitations under § 110 of the Act.

The new ground rules called for by the D.C. Circuit will require all fifty states to adopt comprehensive revisions to their state implementation plans. Emissions reductions brought about by these revisions will not be based upon real threats to the public health and welfare, but rather upon theoretical local violations of ambient requirements that are predicted to occur when false stack height assumptions are used.

Under the required state implementation plan revisions, existing industrial facilities face the prospect of billions of dollars in additional costs. *See supra* pp. 10-11, 23 n.52. As to new source construction, the decision could require the states to develop costly emission offset programs designed to avoid theoretical, not actual, violations of ambient standards.[60] If offsets could not be obtained, no growth could take place.

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[60] Under CAA §§ 110 and 163, industrial growth can take place only if it is demonstrated that no violations of ambient standards and PSD increments will occur. Under the ambient standard definition of "excessive concentrations" suggested by the D.C. Circuit, *see* App. 19a-20a, 24a, 27a, a source's stack height credit would be set to predict ambient concentrations just below the ambient standards. This definition of "excessive concentrations" would thus require emissions offsets before any further construction could take place, in order to avoid theoretically predicting violations of ambient standards or PSD increments.

Regarding the administration of § 110 by the states, the court's decision will further complicate already overly complex state regulatory programs. By expanding the use of false stack height assumptions, the states would be forced to refocus their air pollution control on nonexistent pollution concentrations predicted using mathematical models. Whenever mathematical models are changed, new emission limitations would have to be established.[60] Real air quality—i.e., the air that people actually breathe—would cease to govern, or even affect, the stringency of emission limitations and would be largely irrelevant to administration of the Act.[61]

In sum, the D.C. Circuit in this case mandates EPA regulatory changes that would transform the § 110 regulatory program from one that is largely directed at actual pollution concentrations to one directed at abating wholly theoretical violations of public health and welfare standards. The D.C. Circuit has thus set in motion a

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[60] Since § 123 focuses on theoretical rather than actual ambient concentrations, it can be implemented only through mathematical dispersion models. Under § 320(a) of the Act, EPA is required to conduct a proceeding at least every three years to revise air quality models in light of the most recent scientific information. Every time these models are revised they will predict different ambient concentrations. As a result, by making false stack height assumptions the centerpiece of clean air regulation, the D.C. Circuit will require the states to engage in a never-ending process of implementation plan revisions.

[61] The New York Department of Environmental Conservation recently requested EPA to seek further review of the "excessive concentrations" portion of the D.C. Circuit's decision since it will open a "Pandora's box" of false regulatory assumptions, imposing requirements which "most states do not have the expertise or the resources to apply." Letter from New York Department of Environmental Conservation to EPA at 2 (December 27, 1983). The current rulemaking record shows that states would have had difficulty coping with the reviews required under the 1979 proposal. *See, e.g.*, 46 Fed. Reg. 49821 (1981); Comments of New York Dep't of Environmental Conservation (March 6, 1979) at 2; Comments of Texas Air Control Board (March 18, 1979) at 2-3.

process that will lead EPA to require the states to impose many emission limitations that are more stringent than necessary to attain ambient standards, a result rejected in *Train v. NRDC*, 421 U.S. 60 (1975). Equally important, the court below has required enormously costly compliance measures even though the public health is not in fact threatened, a result which, if allowed to stand, should lead this Court to reconsider its decision in *Union Electric*, 427 U.S. 246, 258-59 (1976). Certiorari is necessary in this case to review this D.C. Circuit decision which threatens to restructure in a fundamental way this nation's system of air quality regulation.

CONCLUSION

For the reasons stated, this petition for certiorari should be granted.

Respectfully submitted,

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February 28, 1984

SUPPLEMENTAL APPENDIX

PARENT COMPANIES, SUBSIDIARIES AND AFFILIATES OF INDIVIDUAL ELECTRIC UTILITIES

Alabama Power Company
(subsidiary of The Southern Company)

subsidiary:

Alabama Property Company

affiliate:

Southern Electric Generating Company

Appalachian Power Company
(subsidiary of American Electric Power Company, Inc.)

subsidiaries:

Central Appalachian Coal Company
Central Coal Company
Central Operating Company
Kanawha Valley Power Company
Southern Appalachian Coal Company
West Virginia Power Company
Cedar Coal Company

Baltimore Gas and Electric Company

subsidiaries:

Resource and Property Management, Inc.

Safe Harbor Water Power Corp.

Boston Edison Company

Carolina Power & Light Company

subsidiaries:

Capitan Corporation
Leslie Coal Mining Company
McInnes Coal Mining Company
Carolina Power & Light Finance N.V.

affiliate:

Carolinas-Virginia Nuclear Power Associates, Inc.

Central and South West Corporation

subsidiaries:

Central Power and Light Company
Public Service Company of Oklahoma

subsidiary:

Ash Creek Mining Co.

Transok Pipe Line Co.
Southwestern Electric Power Company

subsidiary:

Southwest Arkansas Utilities Corp.

affiliate:

Arklahoma Corp.

West Texas Utilities Company
Central and South West Services, Inc.
Central and South West Fuels, Inc.
CSW Financial Inc.

Central Hudson Gas and Electric Corporation

subsidiaries:

Phoenix Development Company, Inc.
Greene Point Development Corporation
Central Hudson Enterprises Corp.
CH Resources, Inc.

Central Illinois Light Company

subsidiaries:

CILCO Exploration and Dev. Co.
CILCO Energy Corporation

Central Illinois Public Service Co.

subsidiary:

Electric Energy, Inc.

The Cincinnati Gas and Electric Company

subsidiaries:

Union Light, Heat and Power Co.
West Harrison Gas & Electric Co.
Miami Power Corp.
Lawrenceburg Gas Co.
Lawrenceburg Gas Transmission Corp.
Tri-State Improvement Co.
YGK Inc.

The Cleveland Electric Illuminating Co.

subsidiaries:

The Ceico Co.
CCO Co.

Columbus and Southern Ohio Electric Company (subsidiary of American Electric Power Company, Inc.)

subsidiaries:

Colomet, Inc.
Simco, Inc.

Commonwealth Edison Company

subsidiaries:

Commonwealth Edison Co. of Indiana, Inc.
Chicago & Illinois Midland Railway Co.
Cotter Corp.
Commonwealth Research Corp.
Edison Development Canada Inc.
Edison Development Co.
Concomber, Ltd.

Consolidated Edison Company of New York, Inc.

Consumers Power Company

subsidiaries:

Michigan Gas Storage Company
Northern Michigan Exploration Company

Michigan Utility Collection Service Co., Inc.
Plateau Resources Limited
Utility Systems, Inc.
Consumers Power Finance N.V.

The Dayton Power and Light Company

subsidiaries:

DP&L Community Urban Redevelopment Corp.
Miami Valley Development Company
ZMS Inc.

Delmarva Power & Light Company

subsidiaries:

Delmarva Energy Co.
Delmarva Industries, Inc.

The Detroit Edison Company

subsidiaries:

Edison Illuminating Company
Midwest Energy Resources Company
St. Clair Energy Corp.
Washtenaw Energy Corp.
Utility Technical Services, Inc.

Duke Power Company

subsidiaries:

Mill-Power Supply Co.
Crescent Land & Timber Corp.

subsidiaries:

Millwood Co.
Wateree Power Co.

Eastover Land Co.
Eastover Mining Co.
Western Fuel, Inc.
Wateree Power Co.
Catawba Manufacturing and Electric Power Co.

Western Carolina Power Co.
Caldwell Power Co.
Southern Power Co.
Greenville Gas and Electric Light and Power Co.
Duke Power Overseas Finance N.V.

Florida Power Corporation
(subsidiary of Florida Progress Corporation)

Florida Power & Light Company

subsidiaries:

Fuel Supply Service, Inc.
Land Resources Investment Company
W. Flagler Investment Corp.

Georgia Power Company
(subsidiary of The Southern Company)

subsidiary:

Piedmont Forrest Co.

affiliate:

Southern Electric Generating Company

Gulf Power Company
(subsidiary of The Southern Company)

Gulf States Utilities Company

subsidiary:

Varibus Corporation

Houston Lighting & Power Company
(controlled by Houston Industries, Inc.)

Illinois Power Company

subsidiaries:

IP Inc.
IPF Co. N.V.
Illinois Power Fuel Company

affiliate:

Electric Energy, Inc.

Indiana & Michigan Electric Company
(subsidiary of American Electric Power Company, Inc.)

subsidiaries:

Price River Coal Company
Blackhawk Coal Company

Indianapolis Power & Light Company

Iowa-Illinois Gas and Electric Company

subsidiary:

Iowa-Illinois Energy Co.

Iowa Public Service Company

subsidiaries:

Cimmred, Inc.
Energy Development Company
Energy Reserves, Inc.
Centennial Coal, Inc.
Midwest Energy Co.
Midwest Energy Services Co.

Kansas City Power and Light Company

Kentucky Power Company
(subsidiary of American Electric Power Company, Inc.)

Kentucky Utilities Company

subsidiary:

Old Dominion Power Company

Long Island Lighting Company

subsidiary:

LILCO Energy Systems, Inc.

Madison Gas and Electric Company

subsidiaries:

MG&E NUCLEAR FUEL INC.
MAGAEL INC.
MAGAEL Material Resources, Inc.

Arkansas Power & Light Company
(subsidiary of Middle South Utilities, Inc.)

subsidiary:

Associated Natural Gas Co.

affiliates:

System Fuels, Inc.
The Arklahoma Corp.

Louisiana Power & Light Company
(subsidiary of Middle South Utilities, Inc.)

Mississippi Power & Light Company
(subsidiary of Middle South Utilities, Inc.)

subsidiaries:

The Light, Heat & Water Company of Jackson*
Jackson Gas Light Company*
Jackson Light & Traction Company*

affiliate:

Systems Fuels, Inc.

New Orleans Public Service, Inc.
(subsidiary of Middle South Utilities, Inc.)

subsidiary:

Systems Fuels, Inc.

Mississippi Power Company
(subsidiary of The Southern Company)

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* Inactive

Monongahela Power Company
(subsidiary of Allegheny Power System, Inc.)

subsidiaries:

Allegheny Generating Co.
Allegheny Pittsburgh Coal Company*

New England Power Company
(subsidiary of New England Electric System)

New York State Electric & Gas Corporation

Northeast Utilities

subsidiaries:

Connecticut Light and Power Company

subsidiaries:

Shelton Canal Co.
Research Park, Inc.
Connecticut Gas Co.
Electric Power, Inc.*
Connecticut Transmission Corp.*
City & Suburban Electric Gas Co.
The Nutmeg Power Company
The Mohawk Gas Co.*
The Connecticut Steam Co.*

Northeast Nuclear Energy Company
Quinnehtuk Company
Rocky River Realty Company
Western Massachusetts Electric Co.
Northeast Utilities Service Co.

Northern Indiana Public Service Company

subsidiaries:

Shore Line Shops, Incorporated
NIPSCO Exploration Co.
NIPSCO Fuel Co., Inc.
Northern Indiana Public Service Finance N.V.

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* Inactive

Ohio Edison Company

subsidiaries:

Pennsylvania Power Company
Ohio Edison Finance N.A.

Ohio Power Company
(subsidiary of American Electric Power Company, Inc.)

subsidiaries:

Central Coal Company
Central Ohio Coal Company
Central Operating Company
Southern Ohio Coal Company
Windsor Power House Coal Company
Beech Bottom Power Co., Inc.
Cardinal Operating Co.

Ohio Valley Electric Corporation

subsidiary:

Indiana-Kentucky Electric Corp.

Oklahoma Gas and Electric Company

subsidiary:

Arklahoma Corporation

Pennsylvania Power and Light Co.

subsidiaries:

Pennsylvania Mines Corp.

subsidiaries:

Tunnelton Mining Co.
Greene Manor Coal Co.
Rushton Mining Co.
Greene Hill Coal Co.

Service Development Company
Safe Harbor Water Power Corp.
Realty Company of Pennsylvania

subsidiaries:

BDW Corp.
LCA Leasing Corp.
Lady Jane Colleries, Inc.

Interstate Energy Co.
The Arcadia Company, Inc.

The Potomac Edison Company
(subsidiary of Allegheny Power System, Inc.)

subsidiaries:

Allegheny Generating Company
Allegheny Pittsburgh Coal Company *

Potomac Electric Power Company

Subsidiary:

Potomac Electric Finance N.V.

Public Service Company of Indiana, Inc.

Public Service Electric and Gas Company

subsidiaries:

Energy Development Corp.

subsidiary:

Gasdel Pipeline System, Inc.

PSE&G Research Corp.
Energy Terminal Services Corp.
Energy Pipeline Corp.
PSE&G Overseas Finance N.V.

Rochester Gas & Electric Corporation

Salt River Project

Southern California Edison Company

subsidiaries:

Associated Southern Investment Co. (ASIC)
Electric Systems Company

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* Inactive

Energy Services Inc.
Calabasas Park Company (CPC)
Calabasas Communications Company
Southern Surplus Realty Company
Mono Power Company
Bear Creek Uranium Company
Mono Green Mountain Company
Southern California Edison Finance Co. N.V.
Palo Verde Uranium Venture

Tampa Electric Company
(controlled by TECO Energy, Inc.)

Texas Utilities Generating Company
(subsidiary of Texas Utilities Company)

Toledo Edison Company

Tucson Electric Power Company

subsidiary:

Alamito Coal Co.
Escavada Leasing Co.
Valencia Energy Co.

Union Electric Company

subsidiaries:

Union Colliery Company
Missouri Power & Light Company
Missouri Edison Company
Missouri Utilities Company

affiliate:

Electric Energy, Inc.

Virginia Electric and Power Company
(controlled by Dominion Resources, Inc.)

subsidiaries:

Laurel Run Mining Company
Virginia Nuclear, Inc.

West Penn Power Company
(subsidiary of Allegheny Power System, Inc.)

subsidiaries:

Allegheny Generating Company
Allegheny Pittsburgh Coal Company*
Beech Bottom Power Company, Inc.
West Virginia Power & Transmission Co.

subsidiary:

West Penn West Virginia Water Power Company

Wisconsin Electric Power Company

subsidiaries:

Wisconsin Natural Gas Company
Badger Service Company

Wisconsin Power and Light Company

subsidiaries:

South Beloit Water, Gas and Electric Co.
Wisconsin Power and Light Nuclear Fuel, Inc.
NUFUS Resources, Inc.
Windworks, Inc.

affiliate:

Wisconsin River Power Company

Wisconsin Public Service Corporation

affiliates:

Wisconsin River Power Company
Wisconsin Valley Improvement Company
Delores Bench General Partner, Inc.

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* Inactive